# MONITOR

SAMSUNG Digital Security Systems

SAMSUNG TECHWIN

SAMSUNG

# MONITOR SELECTION

| Mode | STM-19LV/17LV | STM-21F | SAM-14MV |
|---|---|---|---|
| Image | | | |
| Color System | NTSC / PAL | | |
| Video In | 2 BNC, 1 S-VHS | 2 BNC, 1 S-VHS | 2 BNC, 1 S-VHS |
| Video Out | 2 BNC | 2 BNC | 2 BNC |
| Audio In | Stereo Input, 2 RCA | 3 RCA | 1 RCA |
| Audio Out | Built-in Speaker Out | 3 RCA | 1 RCA |
| LCD / CRT | 19", 17" TFT-LCD | 21" Flat CRT | 14" CRT |
| Resolution | SXGA | 450TVL | 420TVL |
| Power Source | 12V DC, 50~75Hz | 100~240V AC, 50~60Hz | |
| Dimensions | STM-19LV : 430(W) x 421(H) x 200(D)mm<br>STM-17LV : 382(W) x 390(H) x 200(D)mm | 490(W) x 451.5(H) x 482(D)mm | 350(W) x 328(H) x 371(D)mm |
| Weight | STM-19LV : 6.61Kg<br>STM-17LV : 5.96Kg | 27.74Kg | 14Kg |

# MONITOR TERMS & FEATURES

## Vivid Images as if they were in front of you...

SAMSUNG TECHWIN's Monitor is the ideal monitor for video monitoring systems and surveillance applications. For various video systems, model range three color monitors. With high resolution and excellent functions, SAM is perfect for use in security systems.

Color monitors feature high resolution, free voltage, audio input and output, built in speaker and front panel controls. The audio function is convenient for realistic monitoring. It has adjustable power, tint, sharpness, color, brightness, contrast and volume. And the monitor's Y/C input makes it compatible with S-VHS video recorders.

It is able to automatically detect whether PAL or NTSC video format is connected, and the integrated universal power supply makes the monitor suitable for worldwide use from 100V AC to 240V AC. An automatic switching function makes all the necessary changes for adapting to the required formats. So manual selection is not required. And for convenience, the units are supplied with the appropriate power cord.

## CRT (Cathode Ray Tube)

The CRT monitor is built-in the picture tube that can reproduce the picture image seen by the camera.

## Resolution

A measure of the ability of a camera or television system to reproduce detail. Typically refers to the number of picture elements that can be reproduced with good definition.

## S-VHS

Super VHS format in video recording. A newer standard preserving the downwards compatibility with the VHS format. It offers much better horizontal resolution up to 400TV lines. This is mainly due to the color separation techniques, high-quality video heads and better tapes. S-VHS is usually associated with Y/C separated signals.

## Contrast Ratio

Contrast ratio refers to the difference in light intensity between the whitest white and blackest black the monitor is able to produce. The higher the ratio, the better the color representation of the monitor. e.g. a 500:1 contrast ratio is significantly better than a 150:1 contrast ratio. A higher contrast ratio means the monitor is better able to differentiate fine details in color.

## Response Time

Response time refers to the amount of time it takes for an liquid crystal cell (pixel) to switch from active to non-active, and is measured in milliseconds (ms). This is very important for applications that require fast moving (changing) images like video playback. An average LCD monitor has a response time of 25-40 ms, which will result in significant image trailing while watching videos.

## Viewing Angle

Viewing Angle describes the maximum angle at which an LCD monitor can reliably be viewed. Viewing angles have greatly improved over the years, and now nearly all LCD monitors sport viewing angles of 150 degrees and above, which is more than acceptable in day to day use. The best LCD monitors offer 170 degree viewing angles, making them nearly as proficient as CRT monitors.

# STM-19LV/17LV

19", 17" TFT-LCD Color Monitor

## Outline

The STM-19LV and the STM-17LV are perfect solution for professional surveillance applications. The units deliver exceptionally sharp, crisp pictures with brightness of 300cd/m2, contrast ratio of 700 : 1 and response time of 8ms. Compared to conventional CRT monitors, the STM-19LV and the STM-17LV are significantly lighter and require less power and space. Moreover, these compact, slim units can be used standalone with their own desk stand or wall mountable. Additional features include composite video, S-video inputs & outputs, an SXGA input, built-in speaker, dual scanning system and protecting glass.

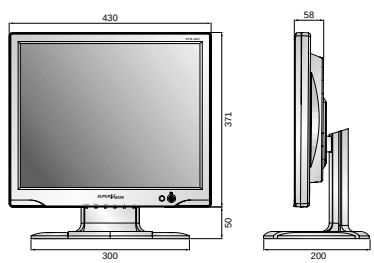
## Features

- 1280 x 1024@75Hz resolution
- 700 : 1 High contrast ratio
- 300cd/m2 High brightness
- 8ms Response time
- BNC loop through, S-Video, RGB inputs
- Built-in speakers
- Protecting glass

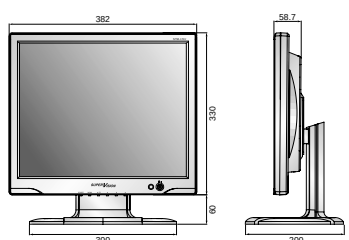
## Dimensions

Unit : mm

STM-19LV




STM-17LV




## Technical Specifications

| Mode | | STM-19LV | STM-17LV |
|---|---|---|---|
| Power Source | | 12V DC / 4A | |
| Power Consumption | | Max. 42W | Max. 36W |
| Panel | Screen Diagonal | 19" | 17" |
| | Max. Resolution | 1280 x 1024 @ 75Hz | |
| | Pixel Range | 0.294mm x 0.294mm | 0.264mm x 0.264mm |
| | Display Colors | 16.7M | 16.2M |
| | Contrast Ratio | 700 : 1 | |
| | Viewing Angle | 150° (Horizontal) / 135° (Vertical) | |
| | Response Time | 8msec | |
| | Luminance | 300 cd/m2 | |
| Input Signal | Input | Video : Analog RGB (0.714Vpp) 75 ohm, Composite (BNC), S-VHS<br>Audio : stereo input | |
| | Connector | 15-pin Mini D-Sub, Stereo, S-VHS, BNC x 2 | |
| Output Signal | Output | Video Composite out (BNC) | |
| Wall Mount (option) | | VESA 100 x 100mm | |
| Glass | | Protection Glass | |
| Dimensions | | 430(W) x 421(H) x 200(D)mm | 382(W) x 390(H) x 200(D)mm |
| Weight | | 6.61Kg | 5.96Kg |

## Accessories

Wall Mount (STB-LM)

# STM-21F NEW 21" Flat Color Monitor

## Outline

The STM-21F is a 21" Color CRT Monitor designed specifically for CCTV security applications. The flat screen is designed to be equally detailed at the corners and edges as in center, which can be critical for security monitoring. Additionally the STM-21F comes with 3 channel audio input/outputs and ensures high reliability and superior clarity in a large screen 21-inch professional display.

## Features

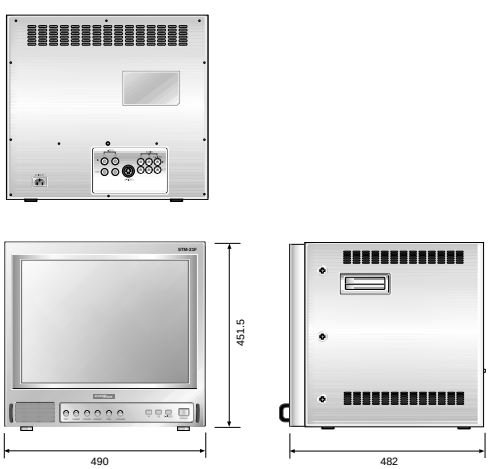
- 21" Flat CRT monitor
- 450TV Lines of horizontal resolution
- NTSC / PAL multiple system
- Video (2 BNC inputs/outputs, S-Video)
- Built-in speaker
- Metal cabinet
- Free voltage : 100 ~ 240V AC

## Technical Specifications

| Mode | STM-21F |
|---|---|
| Power Source | 100 ~ 240 V AC, 50 ~ 60 Hz |
| Power Consumption | Max. 56W |
| Color System | PAL / NTSC |
| Sound Output | 1W |
| Speaker | 3W, 70mm x 40mm |
| Terminals | Video input level / impedance : 1.0 Vp-p/75Ω<br>Video output level / impedance : 1.0 Vp-p/75Ω<br>S-Video input<br>Audio input level / impedance : 0.3 Vrms/25KΩ over<br>Audio output level/impedance : 0.3 Vrms/4.7KΩ under<br>300 ± 50mVrms (1KHz) |
| Picture Tube | 21" Flat |
| Horizontal Resolution | 450TV lines |
| Enclosure | Metal |
| Operating Temperature | 0°C ~ 40°C |
| Operating Humidity | 35% ~ 80% |
| Dimensions | 490(W) x 451.5(H) x 482(D)mm |
| Weight | 27.74Kg |

## Dimensions

Unit : mm



# SAM-14MV 14” Color Monitor

## Outline

SAM-14MV color monitors feature high resolution, free voltage, audio input and output, built in speaker and front panel controls. The audio function is convenient for realistic monitoring. It has adjustable power, tint, sharpness, color, brightness, contrast and volume. And the monitor's Y/C input makes it compatible with S-VHS video recorders. It is able to automatically detect whether PAL or NTSC video format is connected, and the integrated universal power supply makes the monitor suitable for worldwide use from 100V AC to 240V AC. An automatic switching function makes all the necessary changes for adapting to the required formats. So manual selection is not required. And for convenience, the units are supplied with the appropriate power cord.

## Technical Specifications

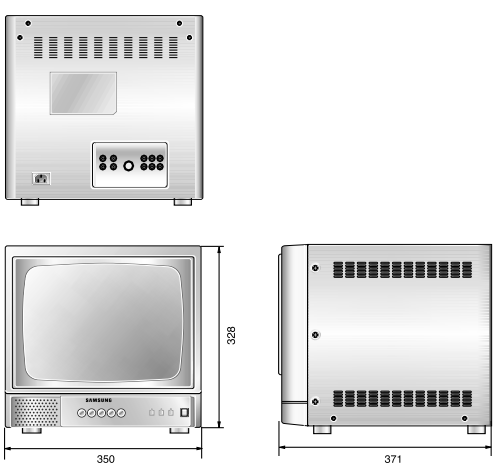
| Mode | | SAM-14MV |
|---|---|---|
| Power Source | | 100 ~ 240 V AC, 50 ~ 60 Hz |
| Power Consumption | | Max. 45W |
| Color System | | PAL / NTSC |
| Video In | | 2 BNC, 1 S-VHS (Y/C) |
| Video Out | | 2 BNC |
| Audio Input | | 1 RCA |
| Audio Output | | 1 RCA |
| Picture Tube | | 14” Line gun 90° deflection<br>Semi tinted CRT |
| Resolution | | 420TV lines |
| Control & Switch | Front | Power, Tint, Color, Sharpness<br>Contrast, Volume |
| | Rear | 1 Impedance switch |
| Enclosure | | Metal |
| Safety | | FCC, CUL, DHHS, CE |
| Operating Temperature | | 0°C ~ 40°C |
| Operating Humidity | | 35 % ~ 80 % |
| Dimensions | | 350(W) x 328(H) x 371(D)mm |
| Weight | | 14Kg |

## Features

- 14” CRT monitor
- High performance resolution
- Automatic color switching system
- Front panel control
- Y-C signals, S-VHS input
- Builit-in speaker
- Metal cabinet
- Free voltage : 100 ~ 240V AC

## Dimensions

Unit : mm



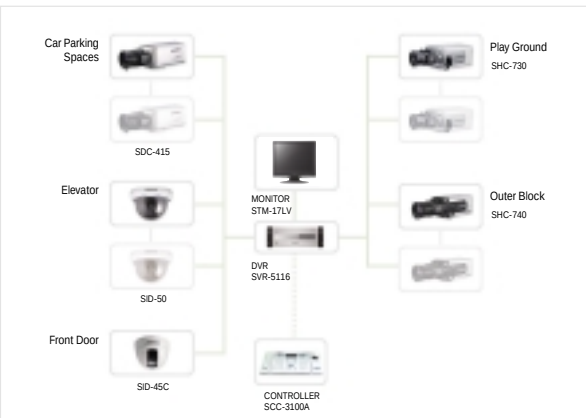
# Application Guides

## Small Businesses

A busy convenience store which has a heavy traffic of customers, and a jewelry store which deals with expensive items are highly exposed to unexpected incidents and potential criminal activities. These small stores can prevent theft and check the display of items by installing digital CCTVs in important areas within the store. When there is an incident, the system also helps you to understand and deal with the situation through the use of digital recording. Remote real-time inspection of stores can be done through the internet even when you are not working inside the facility.

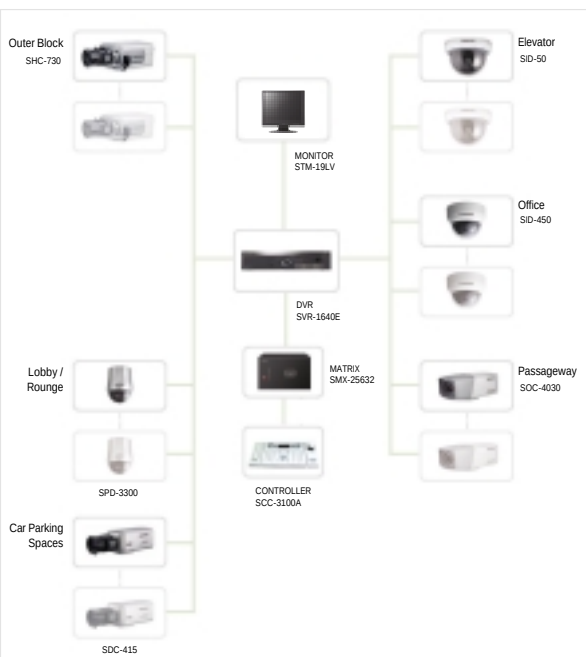
## Apartments / Residential Areas

Robbery, theft and vehicle entry and exit of parking spaces can be monitored within apartment complexes and houses by using the CCTV system. The surveillance system is also very effective for crime prevention in vulnerable areas. Recently there have been cases of cracking down on illegal parking and the illegal dumping of rubbish by using CCTV. The system can replace human resources for apartment management and therefore reduce management expenses.



## Factories

For industrial facilities such as factories, various systems have been designed to suit to types of business. The digital CCTV system enables you to check the operations of automatic machines, to monitor visitors at entrances, to monitor progress in production, to provide unmanned security around factories and to prevent incidents.



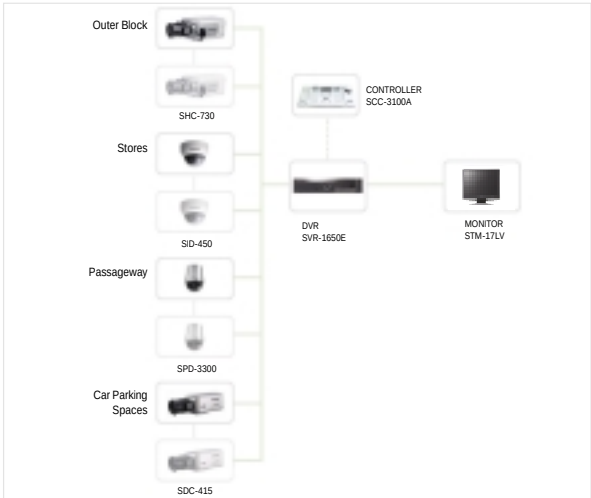
## Buildings

It monitors people who enter buildings, staff movement within buildings and other situations. It also monitors escalator/elevator operations to prevent incidents. Moreover, it helps to observe traffic and other situations in order to prevent any incidents inside and outside of car parking spaces.

# Application Guides

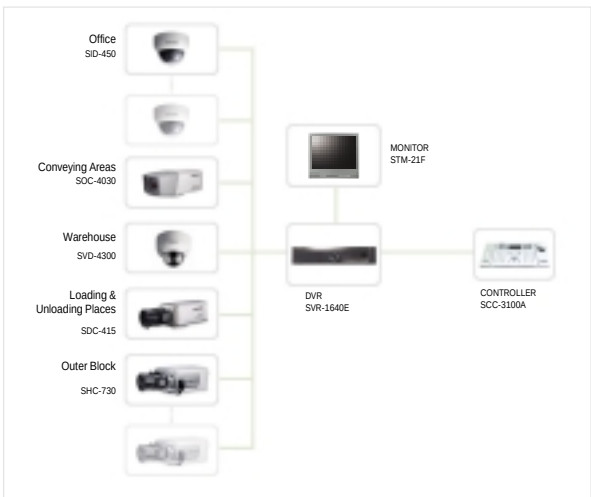
## Department Stores / Shopping Malls

Installation of digital CCTV in stores / passageways / car parking spaces helps improve security for customers, prevent theft of goods, check the display of items, and helps to understand and deal with situations quickly via digital recording if any theft or incident occurs. A special performance product can provide customers with 24 hour security in convenience facilities such as above-ground/underground car parking spaces which are often blind spots for security.



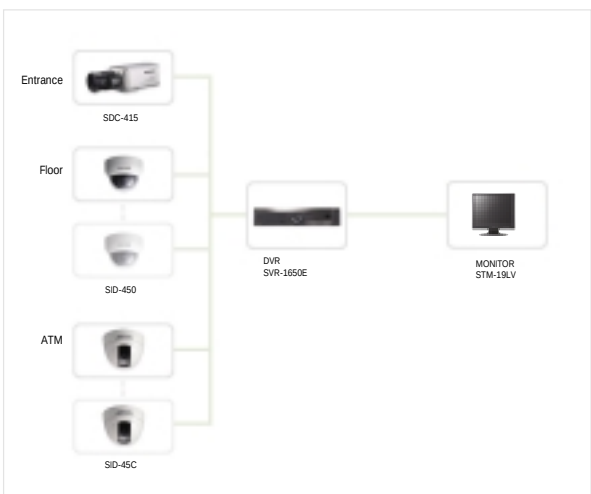
## Warehouses

A total surveillance system is required in order to support routes and provide safety for transporting goods and during vehicle loading and unloading. The surveillance system is also used for monitoring each area which requires observation and access control for important items in warehouses. It helps prevent incidents due to moving vehicles and achieves safe operation by monitoring workers, machine operations and as night-time security surveillance. It enables you to manage and observe the warehouse to prevent losses and to function as a perfect storage facility.



## Financial Facilities

In financial facilities, the CCTV system is mainly used for observing entrances, areas where cash is handled, vaults, customer protection, parking spaces and surrounding areas in order to prevent crime. Therefore, if there is an incident, the suspect's appearance can be recognized and the incident dealt with quickly. It also helps prevent a potential dispute by identifying minor incidents such as monetary mistakes by cashiers.
Moreover, the system acts as a deterrent to criminals from committing criminal activities in the facilities which are known to have the system installed. There are many cases in which the system plays a vital role in solving minor incidents such as refusal of withdrawal or cash receipts, errors in withdrawal amounts and unauthorized withdrawals from accounts as well as the arrest of criminals.



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